

**REMARKS**

Claims 1, 5, 7, 11, 22, 24 and 25 are pending in the application. Claims 1, 24 and 25 are independent. Reconsideration of the rejection in view of the following remarks is respectfully requested.

***35 U.S.C. § 103 Rejection***

Claims 1, 5, 7, 11, 22, 24 and 25 were rejected under 35 U.S.C. § 103(a) for being allegedly unpatentable over U.S. Patent No. 5,096,029 to BAUER et al. in view of U.S. Patent No. 3,183,064 to SIGSWORTH.

The Examiner asserts that BAUER discloses all of the features recited in the above-noted claims including the integrally formed washer-shaped boss body. The Examiner also acknowledges that BAUER lacks, among other things, the recited streamlined recess portion(s) or the recited inwardly contoured trough(s). However, the Examiner explains that this feature is taught by SIGSWORTH and that it would have been obvious to combine the teachings of these documents. Applicant respectfully submits that a *prima facie* case of obviousness has not been established as the applied references fail to teach each and every element of the claims.

Applicant submits that neither BAUER nor SIGSWORTH disclose or suggest the combination of features recited in at least independent claims 1, 24 and 25. Applicant also submits that no proper combination of these documents disclose or suggest the combination of features recited in at least claims 1, 24 and 25.

Applicant notes that Independent claim 1 recites, among other things,

an integrally formed washer-shaped boss body portion formed at a lower end of the opening/closing pin.

Moreover, Independent claims 24 and 25 recite, among other things,  
an integral washer-shaped boss formed on one end of the pin or pin body.

As a preliminary matter, Applicant disagrees with the Examiner's assertion that BAUER discloses an integrally formed washer-shaped boss or boss body. Applicant notes that Webster's II *New College Dictionary*, defines the term washer as "[a] small perforated disk ..." and the term disk as "[a] thin, flat, circular plate." Moreover, this definition is entirely consistent with the pins shown in Figs. 12 and 13 of the instant application. As the Examiner will note from Figs. 12 and 13, the integrally formed washer-shaped boss bodies 161 and 171 of the pins 160 and 170 are clearly illustrated as having a thin, flat, circular plate configuration.

With this definition in mind, Applicant does not dispute that BAUER discloses at col. 4, lines 13-16, that the valve body or pin 38 includes a sealing bead 43 utilizing a valve disk 46. However, it is clear from this language and the drawings that the so-called "valve disk 46" is not in fact disk-shaped. Instead, Figs. 2, 5 and 6 show that the valve disk 46 is devoid of any portion which can arguably be said to constitute a thin, flat, circular plate. Applicant notes that each of the disclosed embodiments clearly utilizes a tapered section 45 and 45'. Indeed, the specification at col. 4, lines 14-15 describes section 45 as having "the shape of a truncated cone" (see also col. 5, lines 59-60). Thus, Applicant submits that, contrary to the Examiner's assertions, BAUER

does not disclose or suggest a pin that includes an integrally formed washer-shaped boss or boss body.

Nor would it have been obvious to one of ordinary skill in the art to remove the tapered section 45/45' of the pin in BAUER in order to produce a pin or valve body that has a washer-shaped boss or boss body. BAUER, in fact, teaches away from this modification. As the Examiner will note from col. 4, lines 16-27, the truncated cone shaped sealing face 45 is made conical in order to sealingly engage the bead 43. Moreover, by utilizing the conical section 45/45', BAUER ensures that "the sealing beads 43, 44 are axially not compressed" (see col. 4, lines 26-27). This asserted benefit would not result if the conical section 45/45' were removed or if the portion 46 were modified to have a washer-shaped boss body.

Moreover, SIGSWORTH discloses subject matter which is unrelated to that of BAUER or the invention. Applicant notes that SIGSWORTH relates to a fluidized bed gas inlet nozzle (see col. 1, lines 11-15) and has nothing to do with a gas opening/closing pin for a height regulating body or gas spring, so as to justify its combination with BAUER - which at least relates to a gas spring. Applicant notes, in particular, that the pin 10 in SIGSWORTH, while arguably participating in the opening and closing of the head 13, is not arranged within a gas spring, and is clearly not used to open and close an inlet or an inlet and outlet of a pipe holder as recited in claims 1, 24 and 25.

Nor does SIGSWORTH even cure the above-noted deficiencies of BAUER. While Applicant does not dispute that SIGSWORTH discloses a streamline recessed

portion or longitudinal inwardly continuously contoured trough 14/14a arranged on what could arguably be called a pin 10, it is clear that SIGSWORTH does not disclose or suggest a pin that includes, in combination with the other recited features, an integrally formed washer-shaped boss or boss body.

Applicant notes that Independent claim 1 also recites, among other things, at least one streamlined recess portion which the gas inlet and outlet formed on a side of an outer peripheral surface of a central portion of the gas opening/closing pin.

Moreover, Independent claims 24 and 25 recite, among other things, one or more longitudinal inwardly continuously contoured troughs formed in a side outer surface thereof.

While the Examiner has acknowledged that BAUER lacks the recited streamlined recess portion or trough and suggested that, because SIGSWORTH discloses such a feature, one of ordinary skill in the art would substitute the cylindrical recess (defining chamber 50) with the recess 14 of SIGSWORTH, the Examiner has failed to explain why one would look to the non-related art fluidized bed gas inlet nozzles (as disclosed in SIGSWORTH) to solve a problem relating to a gas spring. Applicant notes, in particular, that while the recess in BAUER (as well as that of the invention) allows for gas flow within a pipe holder of a gas spring, the recesses 14 of SIGSWORTH merely allow for gas flow through a support 11.

Nor has the Examiner identified any language in BAUER or SIGSWORTH which would suggest any benefit in replacing the cylindrical recess (defining chamber 50) of

BAUER with one or more recesses or troughs of SIGSWORTH. Applicant notes, in particular, that while SIGSWORTH discloses that the recess 14 "may be milled out of the stem 10" (see col. 3, lines 24-27), there is no language in SIGSWORTH which would support the Examiner's assertion that this would "cut down on the machining costs". Nor does Applicant's disclosure provide any support whatsoever for the motivation to combine these documents. While Applicant has explained in the instant application that making the washer-shaped boss or boss body reduces "manufacturing costs" because "a separate washer is not needed", such language is not related to how the recess or trough is formed. Thus, the Examiner's reasons or rational for replacing the cylindrical recess of BAUER with the recess 14 of SIGSWORTH are entirely of the Examiner's making and completely unsupported by any teachings of the applied documents.

Furthermore, in addition to failing to disclose the combination of features recited in the above-noted claims 1, 24 and 25, Applicant submits no proper combination of these documents discloses or suggests the combination of features recited in claims 1, 24 and 25, or in the above-noted claims which depend from claim 1.

Applicant notes, in particular, that BAUER and SIGSWORTH also specifically fail to disclose or suggest:

- (i) that the gas opening/closing pin is made of a non-metal (claim 7).

Accordingly, Applicant respectfully submits that the above-noted rejection under 35 U.S.C. § 103(a) should be withdrawn.

### CONCLUSION

In view of the foregoing remarks, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed.

Respectfully submitted,  
S. R. JO

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', with a large, stylized flourish at the end.

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July 25, 2005  
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